

WHAT IS CLAIMED IS:

1. In a computing environment, a method comprising:

(a) communicating a content-related request, and in response, receiving download regulation data corresponding to an acceptance value and a time-window set containing at least one time value;

(b) determining based on a current acceptance value whether to request the content or whether to back off for a wait time before requesting the content, the wait time corresponding to a time value in the time-window set; and

(i) when the determination result is to request the content, downloading the content for a download time, the download time corresponding to a time value in the time-window set, and

(ii) when the determination result is to back off, delaying downloading of the content for the wait time.

2. The method of claim 1 wherein the time value is the same for the download time and the wait time.

3. The method of claim 1 wherein receiving download regulation data corresponding to an acceptance value and a time-window set comprises receiving a URL to a download regulation file.

4. The method of claim 1 wherein determining whether to  
request the content or whether to back off comprises,  
generating a random number and comparing the random number  
5 with a number corresponding to the acceptance value.

5. The method of claim 1 wherein the determination  
result is to back off, and wherein after delaying downloading  
of the content for the wait time, further comprising repeating  
10 (a) and (b).

6. The method of claim 1 wherein the determination  
result is to download, wherein the content is not completely  
downloaded within the download time, and further comprising  
15 repeating (a) and (b) at least once to resume downloading  
until the download is complete.

7. The method of claim 1 further comprising setting the  
wait time corresponding to a time value in the time-window set  
20 by obtaining the time value from the time-window set and  
varying the obtained time value by a random time amount.

8. The method of claim 1 further comprising setting the  
download time corresponding to a time value in the time-window

set by obtaining the time value from the time-window set and  
varying the obtained time value by a random time amount.

9. The method of claim 1 wherein the determination  
5 result is to back off, and wherein after delaying downloading  
of the content for the wait time, further comprising,  
obtaining another acceptance percentage value from the  
download regulation data, setting that other acceptance  
percentage value as the current acceptance percentage value,  
10 and repeating step (b).

10. A computer-readable medium having computer-  
executable instructions, which, when executed, perform the  
method of claim 1.

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11. In a computing environment, a method of regulating  
access to content, comprising:

receiving a content-related request, and in response,  
providing download regulation data comprising at least one  
20 probability value that directs which clients can download,  
wherein access to the content is regulated by clients  
determining from the probability value whether to download the  
content or wait until later to download the content; and

updating the download regulation data based on network  
load.

12. The method of claim 11 further comprising providing  
5 in the download regulation data a time-window set containing  
at least one time value.

13. The method of claim 12 wherein the time window set  
contains a delay time specifying for at least how long clients  
10 that determine to wait are to delay.

14. The method of claim 12 wherein the time window set  
contains a download time specifying for at most how long  
clients that determine to download may download.

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15. The method of claim 11 wherein each probability  
value corresponds to a percentage, and wherein access to the  
content is regulated by clients determining from the  
probability value whether they meet a threshold based on the  
20 percentage.

16. The method of claim 11 wherein the download  
regulation data contains at least first and second probability  
values, and wherein clients that have not waited determine

from the first probability value whether to download or wait,  
and clients that have waited determine from the second  
probability value whether to download or further wait.

5        17. The method of claim 11 wherein updating the download  
regulation data based on network load comprises obtaining  
information corresponding to regional load, and wherein  
providing download regulation data comprises clients with a  
download regulation data file corresponding to each client's  
10 region.

18. A computer-readable medium having computer-  
executable instructions, which, when executed, perform the  
method of claim 11.

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19. A computer-readable medium having stored thereon a  
data structure, comprising:  
a first set of data corresponding to an acceptance value;  
a second set of data corresponding to a time value; and  
20 wherein the data structure is returned to a client in  
response to a content-related request, and the client  
determines from the acceptance value in the first set of data  
whether to request the content or whether to back off for a

wait time before requesting the content, the wait time corresponding to a time value in the second set of data.

20. In a computer network having unmanaged clients, a  
5 system comprising:

means for determining whether a software update is  
needed;

means for requesting the software update when needed;

means for receiving a download regulation file in  
10 response to the request for the software update; and

means for processing the download regulation file to  
determine whether to download the software update or wait  
until a later time to download the software update, including  
means for generating a random number and means for comparing  
15 the random number against an acceptance value in the download  
regulation file.